

Amendments to the Claims:

Please amend the claims as set forth hereinafter.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of concentrating and purifying a nucleic acid in a liquid sample, said method comprising contacting said liquid sample having a volume and comprising said nucleic acid and a solvent with a superabsorbent polymer or a superabsorptive composite material to absorb at least a portion of the sample by said polymer or composite material, which comprises one or more polymerized anionic monomers, wherein, upon said contacting, the solvent is more efficiently sorbed than the nucleic acid and the sample is concentrated, and wherein said superabsorbing polymer or superabsorptive composite material is a powder or is comprised in a bead.
2. (Currently Amended) The method according to claim 1 where the target entity nucleic acid is dissolved in the sample.
3. (Currently Amended) The method according to claim 2 where the sample contains additional dissolved compounds other than the target entity nucleic acid.
4. (Cancelled)

5. (Previously Presented) The method according to claim 1, further comprising absorbing the further dissolved compounds in said sample with the superabsorbent polymer or the superabsorbing composite material.
6. (Cancelled)
7. (Currently Amended) The method according to claim 1, wherein the solvent is a hydrophilic solvent, ~~preferably water or a mixture of water and a water-miscible solvent~~.
8. (Currently Amended) The method according to claim 1, further comprising separating the ~~target entity~~ nucleic acid from the superabsorbing polymers or superabsorbing composite materials, wherein said superabsorbing polymers or superabsorbing composite materials are swollen.
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Currently Amended) The method of claim 1, wherein the nucleic acid is single-stranded or double-stranded DNA or RNA, or a combination thereof, ~~preferably genomic, viral or plasmid DNA, cDNAs, PCR products or viral RNA~~.
14. (Cancelled)
15. (Currently Amended) The method according to claim 1, 3, 5 or 8, wherein the superabsorbing polymer or superabsorbing composite material comprises

polymerized vinylic monomers and anionic, cationic and/or zwitterionic monomers.

16. (Previously Presented) The method of claim 15, wherein said vinylic monomers are acrylic monomers, acrylic acid or methacrylic acid derivatives, or mixtures thereof.
17. (Previously Presented) The method of claim 16, wherein said acrylic acid and/or methacrylic acid derivatives are amides and/or esters thereof.
18. (Currently Amended) The method of claim 16, wherein said polymer or composite material is a co-polymer comprising polymerized ionized or ionizable acrylic monomers.
19. (Previously Presented) The method of claim 18, wherein said ionized or ionizable acrylic monomers are present in concentrations of 0.1 – 100% of the total monomers.
20. (Previously Presented) The method of claim 16, wherein said polymer or composite material comprises polymerized acrylate, 3-(methacryloylamino)propyl trimethylammonium chloride and/or [3-(methacryloylamino)propyl]dimethyl (3-sulfopropyl) ammonium hydroxide.
21. (Currently Amended) The method of claim 15, wherein said polymer or composite material is crosslinked, preferably with a crosslinking degree of 0.0001-10 %, further preferred with a crosslinking degree of 0.01 – 1 %.
22. (Previously Presented) The method of claim 15, wherein said polymer or composite material further comprises a sorbent dispersed in said polymer.

23. (Currently Amended) The method of claim 1–15, wherein said polymer or composite material undergoes swelling upon contact with water or an aqueous solution.
24. (Currently Amended) The method of claim 1–15, wherein said superabsorbing polymer or superabsorbing composite material is a powder.
25. (Currently Amended) The method of claim 1–15, wherein said superabsorbing polymer or superabsorbing composite material is comprised in a bead preferably with a diameter in the range of 0.001–10 mm, more preferably with a diameter in the range of 0.1–4 mm.
26. (Cancelled)
27. (Cancelled)
28. (Currently Amended) The method according to claim 1–15, wherein the superabsorbing polymer or superabsorbing composite material is comprised in a container selected from the group consisting of a sample tube, a centrifuge tube, a pipette tip, a column, a syringe and a microtiter plate.
29. (Currently Amended) The method according to claim 1–15, wherein said superabsorbing polymer or superabsorbing composite material is filled into, bound to, or polymerized onto said container.
30. (Cancelled)
31. (Cancelled)
32. (Cancelled)

33. (Previously Presented) A method of concentrating and purifying a nucleic acid in a liquid sample comprising contacting said liquid sample having a volume and comprising said nucleic acid and a solvent with a superabsorbent polymer or a superabsorptive composite material to absorb at least a portion of the sample by said polymer or composite material, wherein said polymer or composite material comprising one or more polymerized anionic monomers sorbs water or hydrophilic liquids as well as low molecular weight material and wherein, upon said contacting, the solvent is more efficiently sorbed than the nucleic acid and the sample is concentrated, and wherein said superabsorbing polymer or superabsorptive composite material is a powder or is comprised in a bead.
34. (Previously Presented) The method of claim 18, wherein said acrylic acid and/or methacrylic acid derivatives are amides and/or esters thereof.
35. (New) The method of claim 7, wherein the hydrophilic solvent is water or a mixture of water and a water miscible solvent.
36. (New) The method of claim 13, wherein the single-stranded or double-stranded DNA or RNA, or a combination thereof is genomic, viral or plasmid DNA, cDNAs, PCR products or viral RNA.
37. (New) The method of claim 21, wherein the said polymer is crosslinked with a crosslinking degree of 0.0001-10 %.

38. (New) The method of claim 21, wherein the said polymer is crosslinked with a crosslinking degree of 0.01 – 1 %.
39. (New) The method of claim 25, wherein the bead has a diameter in range of 0.001-10 mm.
40. (New) The method of claim 25, wherein the bead has a diameter in the range of 0.1 – 4 mm